

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Cancelled)
2. (Currently Amended) The lower leg prosthesis of claim [[1]] 42, wherein the elastomeric layer extends fully to a periphery of the lower foot plate.
3. (Currently Amended) The lower leg prosthesis of claim [[1]] 42, wherein the elastomeric layer comprises an upper portion adjacent the upper foot plate, a lower portion adjacent the lower foot plate and a middle portion disposed between the upper and lower portions.
4. (Original) The lower leg prosthesis of claim 3, wherein the lower portion extends substantially to a periphery of the lower foot plate.
5. (Original) The lower leg prosthesis of claim 3, wherein the lower portion extends substantially to a periphery of the lower foot plate, the upper portion extends generally to a periphery of the upper foot plate and the middle portion extends generally less than the upper foot plate or the lower foot plate in a lateral direction.
6. (Original) The lower leg prosthesis of claim 5, wherein lateral facing sides of the elastomeric layer in the middle portion are generally concave.
7. (Previously Presented) The lower leg prosthesis of claim 3, wherein lateral facing sides of the elastomeric layer in the middle portion are generally convex.
8. (Original) The lower leg prosthesis of claim 3, wherein the lower portion is generally planar in an area extending beyond a periphery of the upper foot plate, and wherein the middle portion provides a smooth transition between the upper portion and the planar area of the lower portion.

9. (Original) The lower leg prosthesis of claim 3, wherein the middle portion defines a wedge section that extends from a posterior end of the upper foot plate toward a posterior end of the lower foot plate, protruding beyond the posterior end of the upper foot plate.

10. (Currently Amended) The lower leg prosthesis of claim [[1]] 42, wherein the elastomeric layer bonds the upper foot plate to the lower foot plate.

11. (Original) The lower leg prosthesis of claim 10, wherein the elastomeric layer is the sole bonding between the upper and lower foot plates.

12. (Currently Amended) The lower leg prosthesis of claim [[1]] 42, wherein the width of the elastomeric layer is generally narrower than the widths of the upper and lower foot plates.

13. (Original) The lower leg prosthesis of claim 12, wherein the elastomeric layer comprises an upper portion adjacent the upper foot plate, a lower portion adjacent the lower foot plate and a middle portion interposed between the upper and lower portions, and wherein the width of the middle portion is generally narrower than the widths of the upper and lower portions.

14. (Currently Amended) The lower leg prosthesis of claim [[1]] 25, wherein the lower foot plate is formed of a composite material incorporating high-strength fibers.

15-16. (Cancelled)

17. (Currently Amended) The lower leg prosthesis of claim [[16]] 48, wherein the first gap has a substantially uniform width in the range of 1 to 12 mm.

18. (Cancelled)

19. (Currently Amended) The lower leg prosthesis of claim [[18]] 49, wherein the second gap has a substantially circular cross-section.

20. (Currently Amended) The lower leg prosthesis of claim [[18]] 49, wherein the second gap blends smoothly with a lower surface of the upper plate and with upper surfaces of the forefoot and heel plates.

21. (Cancelled)

22. (Currently Amended) The lower leg prosthesis of claim [[16]] 48, wherein:

the forefoot plate and the heel plate both are formed of a composite material incorporating high-strength fibers;

the forefoot plate has a thickness that varies along its length, from a maximum at the forefoot plate's anterior end to a minimum at the forefoot plate's posterior end; and

the heel plate has a thickness that varies along the heel plate's length, from a minimum at the heel plate's anterior end to a maximum at the heel plate's posterior end.

23. (Currently Amended) The lower leg prosthesis of claim [[1]] 42, wherein the elastomeric layer incorporates a solid, high-density polyurethane.

24. (Currently Amended) The lower leg prosthesis of claim [[1]] 42, wherein the elastomeric layer has a thickness of at least about 2 mm over the outer portion of the lower foot plate.

25. (Currently Amended) A lower leg prosthesis comprising:

an upper foot plate having a substantially rigid portion, a portion flexible in a longitudinal direction and a sloped upper surface;

a lower foot plate disposed below and coupled to the upper foot plate such that a space is defined therebetween, the lower foot plate including a forefoot portion and a heel portion aligned along the longitudinal axis, wherein the sloped upper surface of the upper foot plate slopes downwardly from the heel portion toward the forefoot portion of the lower foot plate when the prosthesis is in a mid-stance position; and

an attachment device ~~coupled to the upper foot plate, the attachment device~~

including a lower surface that is mounted to the downwardly sloped upper surface of the upper foot plate, ~~and~~ an upper surface and a mounting protrusion adapted for connection to an external prosthetic component wherein the upper surface of the attachment device is oriented generally horizontally, and the mounting protrusion is oriented generally vertically when the prosthesis is in a mid-stance position.

26-28. (Cancelled)

29. (Currently Amended) The lower leg prosthesis of claim 25, wherein the attachment device comprises a wedge-shaped portion having a generally horizontal upper surface and a lower surface that corresponds to the sloped upper surface of the upper foot plate.

30-31. (Cancelled)

32. (Original) The lower leg prosthesis of claim 30, wherein the mounting protrusion comprises a pyramid adapter.

33. (Previously Presented) The lower leg prosthesis of claim 25, wherein the attachment device is bonded to the upper foot plate.

34. (Original) The lower leg prosthesis of claim 25, wherein the attachment device attaches to the upper foot plate using mechanical fasteners.

35. (Previously Presented) The lower leg prosthesis of claim 25, wherein the upper foot plate comprises an upper surface and a lower surface with the lower surface facing the lower foot plate, and the lower leg prosthesis further comprises a backing component configured for placement generally adjacent the lower surface of the upper foot plate and disposed generally below the attachment device, and wherein the attachment device attaches to the upper foot surface using a mechanical fastener coupled to the backing component.

36. (Original) The lower leg prosthesis of claim 35, wherein the backing component comprises at least one threaded opening and wherein the mechanical fastener threads into the threaded opening.

37. (Original) The lower leg prosthesis of claim 36, wherein the backing component comprises a plurality of threaded openings and wherein a plurality of mechanical fasteners thread into the plurality of threaded openings, respectively.

38. (Original) The lower leg prosthesis of claim 25, wherein the attachment device is formed from one or more of metals, ceramics, composites and plastics.

39. (Original) The lower leg prosthesis of claim 25, wherein the attachment device is configured for weight reduction.

40. (Original) The lower leg prosthesis of claim 39, wherein the attachment device comprises a weight reducing portion formed by removal of material.

41. (Original) The lower leg prosthesis of claim 40, wherein the weight reducing portion comprises a cutout formed in a forward facing portion of the attachment device.

42. (Original) The lower leg prosthesis of claim 25, further comprising an elastomeric layer disposed between the lower foot plate and the upper foot plate.

43. (Original) The lower leg prosthesis of claim 42, wherein the elastomeric layer extends across a substantial portion of an upper surface of the lower foot plate.

44. (Original) The lower leg prosthesis of claim 42, wherein the elastomeric layer extends over a substantial portion of a lower surface of the upper foot plate.

45. (Original) The lower leg prosthesis of claim 42, wherein the upper foot plate comprises an upper surface and a lower surface with the lower surface facing the lower foot plate, and the lower leg prosthesis further comprises a backing component configured

for coupling with the attachment device, and wherein the elastomeric layer comprises at least one recess configured to receive the backing component so as to locate the backing component generally adjacent the lower surface of the upper foot plate and generally below the attachment device, the attachment device attached to the upper foot plate by coupling to the backing component.

46. (Original) The lower leg prosthesis of claim 42, wherein the upper foot plate comprises an upper surface and a lower surface with the lower surface facing the lower foot plate, and the lower leg prosthesis further comprises a backing component configured for placement generally adjacent the lower surface of the upper foot plate and disposed generally below the attachment device and generally within the elastomeric layer, and wherein the attachment device attaches to the upper foot plate using a mechanical fastener coupled to the backing component.

47. (Cancelled)

48. (Currently Amended) The lower leg prosthesis of claim ~~[[47]]~~ 25, wherein:

the forefoot and heel plates together have a toe section, a mid-foot section, and a heel section; and

the forefoot and heel plates are separated from each other by a first gap located in the mid-foot section.

49. (Previously Presented) The lower leg prosthesis of claim 48, further comprising an elastomeric layer disposed between the lower foot plate and the upper foot plate, with the elastomeric layer-including an anterior section disposed between the upper plate and the forefoot plate and a posterior section disposed between the upper plate and the heel plate, and

wherein a second gap is defined between the anterior and posterior sections, adjacent the first gap.

50. (Original) The lower leg prosthesis of claim 49, wherein the first and second gaps both are substantially straight and oriented substantially perpendicular to the longitudinal axis.

51-52. (Cancelled)

53. (Previously Presented) A lower leg prosthesis comprising:
a curved upper foot plate configured to be flexible in a longitudinal direction;
a lower foot plate disposed below the upper foot plate, the lower foot plate including a heel portion for accommodating heel strike and including a forefoot plate and a heel plate aligned along a longitudinal axis, with the forefoot and heel plates together having a toe section, a mid-foot section, and a heel section, the forefoot and heel plates separated from each other by a first gap located in the mid-foot section;
an attachment device coupled to the upper foot plate and adapted for connection to an external prosthetic component, the attachment device including a lower surface that generally conforms to a sloping portion of the upper foot plate; and
an elastomeric layer disposed between the lower foot plate and the upper foot plate, the elastomeric layer including an anterior section disposed between the upper plate and the forefoot plate, and a posterior section disposed between the upper plate and the heel plate, wherein a second gap is defined between the anterior and posterior sections, adjacent the first gap.

54. (Cancelled)